

CLAIMS

1. An inhaler for use with a container unit containing a medicament formulation to be dispensed, comprising:-
  - 5 a housing in which the container unit is relatively movable thereto to cause dispensing of a dose, preferably a metered dose, of the medicament formulation from the container unit for inhalation by a user through a dispensing outlet of the housing;  
a closure positionable to close the dispensing outlet; and
  - 10 a restricting member, provided on the closure, movable between a first position which enables relative movement between the container unit and the housing for dispensing of the dose of the medicament formulation, and a second position in which the restricting member restricts relative movement between the container unit and the housing such that
  - 15 dispensing of the dose of the medicament formulation is prevented;  
wherein when the closure is positioned to close the dispensing outlet, the restricting member enters the housing through the dispensing outlet to be disposed in its second position.
- 20 2. The inhaler of claim 1, wherein in use the dose of the medicament formulation is dispensed from the container unit when the container unit moves relative to the housing in a first direction and wherein the restricting member in its second position restricts movement of the container unit in the first direction.
- 25 3. The inhaler of claim 1 or 2, wherein in its second position the restricting member restricts relative movement between the container unit and the housing through physical engagement of the restricting member with the container unit.
- 30 4. The inhaler of claim 1, 2 or 3, wherein the restricting member, in its second position, is disposed in front of a leading end of the container unit.

5. The inhaler of any one of the preceding claims, wherein the housing has an axis along which the container unit is movable relative to the housing to dispense the dose of the medicament formulation and the  
5 restricting member, in its second position, extends laterally to the axis to restrict said relative movement.

6. The inhaler of any preceding claim, wherein the restricting member is configured as an arm structure.

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7. The inhaler of any preceding claim, wherein the restricting member is configured as a clip which, in its second position, clips to the housing and/or the container unit to retain the restricting member in its second position.

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8. The inhaler of any preceding claim, wherein the container unit is a dispensing container unit having first and second parts which are movable relative to one another, said relative movement causing dispensing of the dose of the medicament formulation from the dispensing container unit,  
20 and wherein the housing has a support for supporting the first part of the dispensing container unit in a stationary position relative to the housing so that, in use, the second part is able to move in the housing relative to the first part to dispense the dose of the medicament formulation, and wherein the restricting member, in its second position, restricts the movement of  
25 the second part relative to the first part to prevent dispensing of the dose.

9. The inhaler of claim 8, wherein one of the first and second parts is a dispensing outlet member of the dispensing container unit and the other part is a container member containing the medicament formulation.

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10. The inhaler of claim 9, wherein the first part is the dispensing outlet member and the second part is the container member and wherein the

support is adapted in use to direct the output of the dispensing outlet member out of the housing through the dispensing outlet thereof.

11. The inhaler of claim 8, 9 or 10 which is a pressurised metered dose  
5 inhaler (pMDI) with the second part being a pressurised container member containing therein the medicament formulation under pressure and the first part being a valve stem of a metering valve for releasing a metered dose of the pressurised medicament formulation from the dispensing container unit upon relative movement between the pressurised container member and  
10 the valve stem.

12. The inhaler of any of claims 8 to 11, wherein the restricting member comprises a pair of arms that straddle the support when the restricting member is in the second position.

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13. The inhaler of claims 11 and 12, wherein the support is a stem block for receiving the valve stem.

14. The inhaler of any one of claims 8 to 13 when appended to claim 7,  
20 wherein the clip detachably engages the support.

15. The inhaler of claim 7 or any claim appended thereto, wherein the clip detachably engages a step in the housing.

25 16. The inhaler of any one of claims 8 to 14 in combination with claim 15, wherein the step is in a surface of the housing on which the support is provided.

17. The inhaler of any one of the preceding claims, wherein the closure is  
30 movable between a closing position, engaged with the housing, in which it closes the dispensing outlet and places the restricting member in the

second position, and an opening position in which it opens the dispensing outlet and places the restricting member in its first position.

18. The inhaler of any one of the preceding claims, wherein the closure is  
5 detachably mountable on the housing.

19. The inhaler of claims 17 and 18, wherein in use the closure is moved from its closing position to its opening position by detaching the closure from the housing.  
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20. The inhaler of any one of the preceding claims in which the closure is releasably engageable with the dispensing outlet of the housing to close the dispensing outlet.

15 21. The inhaler of claims 17 and 20, wherein in use the closure is moved from its closing position to its opening position by disengaging the closure from the dispensing outlet.

22. The inhaler of any one of the preceding claims further having an  
20 indicator for indicating dispensing from the container unit.

23. The inhaler of claim 22 in which the indicator has a visual display for indicating dispensing from the container unit.

25 24. The inhaler of claim 23 in which the indicator is adapted to update the display in response to movement of the container unit relative to the housing.

25. The inhaler of claim 24, wherein the indicator is adapted to update  
30 the display in response to relative movement of the container unit to the housing by a distance which is less than that required for dispensing of the dose of the medicament formulation from the container unit and wherein

the restricting member in its second position restricts the relative movement of the container unit and the housing such as to prevent updating of the display.

- 5 26. The inhaler of any one of the preceding claims provided with the container unit.

27. The inhaler of claim 26 in which the container unit further has a metering mechanism for dispensing a metered dose of the medicament  
10 formulation on movement of the container unit relative to the housing.

28. The inhaler of claim 26 or 27 when appended to any one of claims 22 to 25, wherein the indicator is comprised in the container unit.

- 15 29. The inhaler of claim 28, wherein the indicator is mounted on a container member of the container unit which contains the medicament formulation and suitably the restricting member, in its second position, co-operates with the indicator to restrict relative movement between the container unit and the housing.

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30. The inhaler of claim 28 or 29 in which the indicator is mounted at the leading end of the container unit.

31. The inhaler of claim 28, 29 or 30 when appended to claim 8 in which  
25 the indicator is comprised in the second part of the container unit.

32. The inhaler of any one of the preceding claims, wherein the dispensing outlet of the housing is in a nozzle configured for insertion into a human or animal body orifice, for example a nostril or a mouth of a human  
30 or animal body.

33. The inhaler of any preceding claim further having a connector which connects the housing and the closure to one another.

34. The inhaler of claim 33, wherein the connector is extensible.

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35. The inhaler of claim 33 or 34, wherein the connector is telescopic.

36. The inhaler of claim 34 or 35, wherein the connector comprises:-  
a first component, attached to the housing; and

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a second component, attached to the closure;

wherein the components are capable of relative movement, suitably sliding movement, between a contracted position, in which the closure closes the dispensing outlet, and an extended position, in which the closure is spaced from the dispensing outlet.

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37. The inhaler of claim 36, wherein one of said components comprises a pin and the other comprises a slot, wherein the pin is captive within the slot and capable of movement within it.

20 38. The inhaler of claim 36 or 37, wherein at least one of the components comprises hinging means.

39. The inhaler of any one of claims 33 to 38, wherein the connector is a strap.

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40. The inhaler of claims 34 and 39, wherein the strap is elastically stretchable between a contracted state, in which the closure is positionable to close the dispensing outlet, and an extended state, in which the closure is spaced remote from the dispensing outlet.

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41. The inhaler of claim 33, wherein the connector comprises a sliding hinge joining the closure to the housing such that the closure and the

housing are capable of relative movement between a first position, in which the closure closes the dispensing outlet, and a second position, in which the closure is spaced from the dispensing outlet such that access thereto is substantially unobstructed thereby.

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42. The inhaler of claim 41, wherein the sliding hinge comprises:-

first and second pins located on opposing sides of the dispensing outlet; and

first and second slots located on first and second opposing elongated  
10 sides of the closure,

wherein the pins are captive within the slots, but capable of rotational and sliding movement within them.

43. An inhaler comprising a housing having a dispensing outlet, and a  
15 closure for closing the dispensing outlet, wherein the closure comprises a connector part for connecting the closure to the housing characterised in that the connector part is extendible.

44. The inhaler of claim 43, wherein the connector part is telescopic.  
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45. The inhaler of claim 43 or 44, wherein the connector part comprises  
a first component, attached to the housing; and  
a second component, attached to the closure;  
wherein the components are capable of relative movement, suitably sliding  
25 movement, between a contracted position, in which the closure closes the dispensing outlet, and an extended position, in which the closure is spaced remote from the dispensing outlet.

46. The inhaler of claim 45, wherein one of said components comprises a  
30 pin and the other comprises a slot, wherein the pin is captive within the slot and capable of movement within it.

47. The inhaler of claim 45 or 46, wherein at least one of the components comprises hinging means.

48. The inhaler of any one of claims 43 to 47, wherein the connector part  
5 is a strap.

49. The inhaler of claims 43 and 48, wherein the strap is elastically stretchable between a contracted state, in which the closure is positioned to close the dispensing outlet, and an extended state, in which the closure  
10 is positioned remote from the dispensing outlet.

50. The inhaler of claim 43, wherein the connector part comprises a sliding hinge joining the closure to the housing such that the closure and the housing are capable of relative movement between a first position, in  
15 which the closure closes the dispensing outlet, and a second position, in which the closure is spaced remote from the dispensing outlet such that access to the dispensing outlet is substantially unobstructed by the closure.

51. The inhaler of claim 50, wherein the sliding hinge comprises  
20 first and second pins located on opposing sides of the dispensing outlet; and

first and second slots located on first and second opposing elongated sides of the closure,

wherein the pins are captive within the slots, but capable of  
25 rotational and sliding movement within them.

52. An inhaler comprising:-

a housing in which a medicament formulation is received and a dispensing member is relatively movable to cause dispensing of a dose,  
30 preferably a metered dose, of the medicament formulation for inhalation by a user through a dispensing outlet of the housing; and



a restricting member adapted to restrict relative movement between the dispensing member and the housing such that dispensing of the dose of the medicament formulation is prevented;

characterised in that the restricting member is fastened to the  
5 canister unit.

53. The inhaler of claim 52 in which the restricting member is further fastened to the housing so as to connect the dispensing member to the housing to restrict said relative movement.

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54. The inhaler of claim 52 or 53 in which the restricting member is releasably fastened to the dispensing member and/or the housing.

55. The inhaler of any of claims 52 to 54 in which the restricting member  
15 is adhesively secured to the dispensing member and/or the housing.

56. The inhaler of any of claims 52 to 55 in which the restricting member is fastened to an end of the dispensing member which protrudes from the housing.

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57. The inhaler of any of claims 52 to 56 in which the restricting member is adapted to abut the housing to restrict said relative movement.

58. The inhaler of claim 56 or claims 56 and 57 in which the restricting  
25 member is selected from the group consisting of a cap or collar mounted on the dispensing member end.

59. The inhaler of any of claims 52 to 55 in which the restricting member is disposed in an aperture in the housing, the aperture having an edge  
30 against which the restricting member is adapted to abut to restrict said relative movement.

60. The inhaler of any of claims 52 to 60 in which the restricting member is fastened to the dispensing member by an interference fit or a press fit.

61. The inhaler of any of claims 52 to 60 in which the restricting member  
5 is fastened to the dispensing member for movement therewith.

62. An inhaler comprising:-

a housing in which a medicament formulation is received and a dispensing member is relatively movable to cause dispensing of a dose,  
10 preferably a metered dose, of the medicament formulation for inhalation by a user through a dispensing outlet of the housing; and

a restricting member which is inserted between the dispensing member and the housing to restrict the relative movement therebetween such that dispensing of the dose of the medicament formulation is  
15 prevented.

63. The inhaler of claim 62, wherein the restricting member is a wedge between the dispensing member and the housing.

20 64. The inhaler of claim 62 or 63, wherein the restricting member is made from an elastically compressible material.

65. The inhaler of claim 64, wherein the restricting member is in a compressed state.

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66. The inhaler of any of claims 62 to 65, wherein the restricting member is of a foam material.

67. The inhaler of any one of claims 62 to 66, wherein a portion of the  
30 restricting member projects from the housing to enable the restricting member to be pulled from the housing thereby enabling relative movement

between the dispensing member and the housing which causes the dose to be dispensed.

68. The inhaler of claim 67, wherein the restricting member projects  
5 from an opening in the housing.

69. The inhaler of any of claims 52 to 68 in which the dispensing member is movable along an axis of the housing, movement of the dispensing member in a first axial direction causing dispensing of the dose  
10 and movement in an opposed second axial direction removing the dispensing member from the housing, wherein the restricting member restricts movement of the dispensing member in the first and second axial directions.

15 70. The inhaler of any of claims 62 to 68 in which the dispensing member is movable relative to the housing along an axis to cause dispensing of the dose, wherein the restricting member is inserted between axially-oriented surfaces of the dispensing member and the housing.

20 71. An inhaler comprising:-

a housing in which a medicament formulation is received and a dispensing member is relatively movable along an axis of the housing, movement of the dispensing member in a first axial direction causing dispensing of a dose, preferably a metered dose, of the medicament  
25 formulation for inhalation by a user through a dispensing outlet of the housing, and movement in an opposed second axial direction removing the dispensing member from the housing; and

a restricting member which is positioned in the inhaler to restrict relative movement between the dispensing member and the housing along  
30 said axis such that dispensing of the dose of the medicament formulation is prevented and removal of the dispensing member from the housing is inhibited or prevented.

72. An inhaler comprising:-

a housing in which a medicament formulation is received and a dispensing member is relatively movable to cause dispensing of a dose, preferably a metered dose, of the medicament formulation for inhalation by a user through a dispensing outlet of the housing; and

a restricting member movable between a first position which enables relative movement between the dispensing member and the housing for dispensing of the dose of the medicament formulation, and a second position in which the restricting member restricts relative movement between the dispensing member and the housing such that dispensing of the dose of the medicament formulation is prevented;

characterised in that the restricting member enters the housing through the dispensing outlet to be disposed in its second position.

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73. The inhaler of claim 72, wherein the restricting member is releasably attachable to the housing in its second position.

74. The inhaler of claim 72 or 73, wherein the restricting member is part of an accessory which is attachable to the housing.

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75. The inhaler of claim 74, wherein the accessory is attachable to the dispensing outlet of the housing.

76. The inhaler of any of claims 52 to 75 in which the dispensing member is a container unit in which the medicament formulation is contained.

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77. The inhaler of any of claims 1 to 76 which is a pMDI.

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78. The inhaler of any preceding claim, wherein the medicament formulation is an inhalable formulation, for example an aerosol formulation.

79. An accessory for use with an inhaler which comprises a housing for receiving therein a medicament formulation and a dispensing member for relative movement therebetween which causes a dose of the medicament formulation to be dispensed for inhalation by a user through a dispensing outlet of the housing, the accessory adapted to be releasably attached to the inhaler in a use position and having a restricting member which, when the accessory is attached to the inhaler in its use position, extends into the housing through the dispensing outlet to restrict the relative movement between the housing and the dispensing member such that dispensing of the dose is prevented.

80. The accessory of claim 79 which is engaged with the housing in its use position.

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81. The accessory of claim 79 or 80 which is engaged with the dispensing outlet in its use position.

82. The accessory of claim 79, 80 or 81 which is a closure for closing the dispensing outlet in the use position.

83. The accessory of any of claims 79 to 82, wherein the restricting member is an arm structure.

25 84. The accessory of claim 83, wherein the arm structure has a pair of spaced-apart arm members.

85. The accessory of any of claims 79 to 84, wherein the restricting member is configured as a clip for clipping to the housing and/or the dispensing member.

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86. The accessory of claim 85 when appended to claim 83 or 84, wherein the arm structure has a distal end configured as a clip portion.

87. The accessory of claims 85 and 86, wherein the distal end of each  
5 arm member has a clip portion.

88. The accessory of any of claims 79 to 87 having a connector part for connecting the accessory to the housing whereby the accessory is movable between a non-use position and the use position while connected to the  
10 housing.

89. A closure for use with an inhaler which comprises a housing for receiving therein a medicament formulation for inhalation by a user through a dispensing outlet of the housing, the closure having a closing  
15 part for closing the dispensing outlet of the housing and a connector part for connecting the closure to the housing, the closing part being movable between a closing position, in which it closes the dispensing outlet, and an opening position, in which it opens the dispensing outlet, while the closure is connected to the housing by the connector part, characterised in that the  
20 connector part is extendible between a contracted state and an extended state to enable the closure part to move between its closing and opening positions, respectively.

90. The closure of claim 89, wherein the connector part is a strap.  
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91. The closure of claim 89 or 90, wherein the connector part is telescopic.

92. A connector for connecting an accessory to an inhaler housing in  
30 which a medicament formulation is received and in which a dispensing member is relatively movable to dispense a dose of the medicament formulation for inhalation by a user at a dispensing outlet of the housing,

wherein the connector comprises a restricting member adapted in use to restrict movement of the dispensing member relative to the housing to prevent the dose being dispensed.

5 93. The connector of claim 92, wherein the restricting member is insertable through an opening in the housing to a position in which it restricts the relative movement of the dispensing member to the housing.

94. The connector of claim 92 or 93 carrying the accessory which is  
10 engageable on the housing in a use position, the restricting member being positioned to restrict said relative movement when the accessory is in its use position.

95. The connector of claim 94, wherein the accessory is a closure which  
15 in its use position closes the dispensing outlet.

96. A dispensing device for dispensing a substance comprising:-  
a housing in which the substance is receivable and which has a  
dispensing nozzle from which the substance is in use dispensed; and  
20 a closure for releasable mounting on the nozzle for closure thereof;  
wherein the closure comprises a cap member which is configured and  
arranged with respect to the nozzle such as to be capable of being slid over  
the nozzle in an intended orientation of the cap member and an unintended  
orientation of the cap member;  
25 wherein in the intended orientation of the cap member the closure is  
securably mounted on the nozzle by sliding the cap member over the  
nozzle by a predetermined amount to a stationary position; and  
wherein the housing and the closure are configured and arranged  
with respect to each other such that the cap member cannot slide over the  
30 nozzle by the predetermined amount to a stationary position when in the  
unintended orientation thereby to indicate to the user that the closure is  
not correctly mounted on the nozzle.

97. The device of claim 96, wherein an attempt to slide the cap member over the nozzle when the cap member is in the unintended orientation results in the closure and the housing inter-engaging before the cap  
5 member can be slid over the nozzle by the predetermined amount.

98. The device of claim 97, wherein the closure is provided with an extension for abutting the housing before the cap member can be slid over the nozzle by the predetermined amount when in the unintended  
10 orientation.

99. The device of claim 98, wherein the extension extends through the nozzle when the cap member is slid over the nozzle.

15 100. The device of claim 99, wherein the extension is provided on the cap member.

101. The device of any of claims 96 to 100, wherein the cap member has a skirt which presents a mouth at one end thereof for slidably receiving the  
20 nozzle.

102. The device of claims 101 when appended to any of claims 98 to 100, wherein the extension extends from the skirt or from the opening.

25 103. The device of claim 101 or 102, wherein the skirt presents a lip about the mouth, wherein the lip abuts a housing surface when the cap member is slid over the nozzle in the intended orientation by the predetermined amount, and wherein a gap is left between the lip and the housing surface when an attempt is made to slide the cap member over the  
30 nozzle in the unintended orientation thereby to indicate to the user that the closure is not correctly mounted on the nozzle.



104. The device of any of claims 96 to 103, further having a dispensing member which is relatively movable in the housing to cause dispensing of the substance from the nozzle, wherein the closure further has a restricting member which, when the closure is securably mounted to the nozzle with  
5 the cap member in the intended orientation, restricts relative movement between the dispensing member and the housing such that dispensing of the substance is prevented.

105. The device of claim 104, wherein the restricting member extends  
10 through the nozzle when the closure is securably mounted to the nozzle with the cap member in the intended orientation.

106. The device of claim 104 or 105, wherein the restricting member is provided on the cap member.  
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107. The device of any of claims 104 to 106 when appended to any of claims 98 to 100 and 102, wherein the restricting member comprises the extension.

20 108. The device of any of claims 104 to 107, wherein the dispensing member is a container unit in which the substance is contained.

109. The device of any of claims 96 to 108 which is a medicament dispenser.  
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110. The device of claim 109 which is an inhaler.

111. The device of claim 110 which is a pMDI.

30 112. A closure for closing a dispensing nozzle of a dispensing device, the closure having:-

a cap adapted in use to be securably mounted on the nozzle by insertion of the nozzle into the cap a predetermined amount when the cap is in an intended orientation, and

an extension for engaging the dispensing device when an attempt is  
5 made to insert the nozzle into the cap in an unintended orientation thereof, the extension being configured and arranged such that it engages the dispensing device before the nozzle is able to be inserted into the cap by the predetermined amount when the cap is in the unintended orientation, thereby to indicate that the closure is not being correctly mounted on the  
10 nozzle.

113. The closure of claim 112, wherein the cap is slidable over the nozzle in a first direction and the extension extends from the closure in the first direction.

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114. The closure of claim 112 or 113, wherein the extension is disposed asymmetrically on the closure.

115. The closure of any of claims 112 to 114, wherein the cap has an  
20 imaginary axis of rotation about which the cap is rotatable between its intended and unintended orientations and the extension is disposed offset to the axis.

116. The closure of claim 115, wherein the extension extends generally  
25 parallel to the axis.

117. The closure of any of claims 112 to 116, wherein the cap has a skirt portion which presents a mouth at one end thereof for slidably receiving the nozzle.

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118. The closure of claim 117, wherein the extension extends from the skirt portion or the opening.

119. The closure of claim 117 or 118, wherein the cap further has an end wall portion across the end of the skirt portion opposite the mouth.

5 120. The closure of 119, wherein the extension extends from the end wall out of the opening.

121. The closure of claim 115 or any claim appended thereto, wherein the imaginary axis of rotation is a central axis of the cap.

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122. The closure of any of claims 117 to 120 when appended to claim 115 or of claim 121 when appended to claim 117, wherein the skirt portion is disposed about the axis.

15 123. The closure of any of claims 112 to 122, wherein the extension is in the form of a tongue, a frame or an arm.

124. The closure of claim 123 when appended to claim 118, wherein the tongue or frame extends from the skirt portion.

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125. The closure of claim 123 when appended to claim 118, wherein the arm extends from the opening.

25 126. The closure of any of claims 112 to 125, wherein the extension has a plurality of limbs at its distal end.

127. The closure of any of claims 112 to 126, wherein the extension is provided with one or more connector elements for releasably connecting with the dispensing device.

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128. The closure of claim 127, wherein the connector element(s) is configured as a clip element for clipping to the dispensing device.

129. The closure of claim 127 or 128, wherein the connector element(s) is at the distal end of the extension.

5 130. The closure of claims 126 and 129, wherein the distal end of at least one of the limbs is configured as the connector element.

131. The closure of any of claims 112 to 130, wherein the extension extends through the nozzle when the closure is securably mounted on the  
10 nozzle.

132. The closure of any of claims 112 to 131, wherein at least a portion of the extension is adapted for (i) receipt in a socket of the dispensing device when the cap is slid over the nozzle in the intended cap orientation, and (ii)  
15 engagement with a surface of the dispenser device spaced from the socket when an attempt is made to slide the cap over the nozzle in its unintended cap orientation.

133. The closure of claim 132, wherein the at least a portion of the  
20 extension is at its distal end.

134. A dust cap for a pMDI having a cap part adapted for a push-fit on the dispensing nozzle of the pMDI and a strap part for connecting the dust cap to the pMDI, wherein the cap part is slidably mounted on the strap part for  
25 sliding movement between an extended position and a contracted position.

135. The cap of claim 134, wherein one of the cap part and the strap part comprises a slide member and the other part comprises a track member for the slide member to slide on.  
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136. The cap of claim 135, wherein the slide member and the track member define a telescoping arrangement.

137. The cap of claim 134, 135 or 136 having a latching mechanism for latching the cap part in the contracted position.

5 138. The cap of any of claims 134 to 137, wherein the strap part and the cap part have latching elements adapted to latch the cap part in the contracted position.

139. The cap of claim 138 when appended to claim 135 or 136, wherein  
10 the latching elements are carried by the slide and track members.

140. The cap of claim 138 or 139, wherein the latching element comprise one or more male latching features and a corresponding number of complementary female latching features.

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141. The cap of any of claims 134 to 140, wherein the cap part comprises a cap member for the nozzle.

142. The cap of claim 141 when appended to claim 135, wherein the cap  
20 member is movably mounted to the slide or track member.

143. The cap of any of claims 134 to 142, wherein the strap part comprises a connector member for connecting the strap part to the pMDI.

25 144. The cap of claim 143 when appended to claim 135, wherein the connector member is movably mounted to the slide or track member.

145. The cap of any of claims 134 to 144, wherein the cap part and/or the strap part are integrally formed parts.

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146. The cap of any of claims 134 to 145, wherein the cap part and/or the strap part are of a plastics material.

147. The cap of any of claims 134 to 146 having a stop mechanism for stopping the cap part in the extended position.

- 5 148. The cap of claim 147, wherein the stop mechanism comprises stop elements on the strap part and the cap part which engage when the cap part is in the extended position.

149. The cap of claim 148, wherein the stop elements are carried by the  
10 slide member and the track member.

150. The cap of claim 147, 148 or 149, wherein the stop mechanism secures the cap and strap parts together.

- 15 151. The cap of claim 148, or of claim 49 or of claim 150 when appended to claim 148 or 149, wherein a first stop element comprises an opening on one of the slide and track members through which a second stop element on the other part projects, the second stop element having an enlarged section which abuts the edge of the opening in the extended position of the  
20 cap part.

152. The cap of claim 151, wherein one or more projecting elements project into the opening to inhibit extraction of the enlarged section through the opening.

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153. The cap of claim 143 or any claim appended thereto, wherein the connector member has an aperture for mounting on a protrusion on the pMDI.

- 30 154. The cap of claim 153, wherein the aperture has a slot in its boundary surface to increase its flexibility.

155. An inhaler substantially as hereinbefore described with reference to FIGURES 1 and 2A-D, or FIGURES 3A-J, or FIGURES 3K-M, or FIGURES 4A-B, or FIGURE 5, or FIGURES 6 and 6A-F, or FIGURES 6G-H, or FIGURES 7A-B, or FIGURES 8A-B, or FIGURES 9A-B, or FIGURES 10A-B, or FIGURES
- 5 11A-B, or FIGURES 12A-B, or FIGURES 13A-B, or FIGURES 14A-B, or FIGURES 15-16, or FIGURES 17A-B, or FIGURES 18A-B, or FIGURES 19A-B, or FIGURES 20A-B, or FIGURES 21A-B or FIGURES 22A-C of the accompanying drawings.
- 10 156. A closure substantially as hereinbefore described with reference to FIGURES 1 and 2A-D, or FIGURES 3A-J, or FIGURES 3K-M, or FIGURES 4A-B, or FIGURE 5, or FIGURES 6 and 6A-F, or FIGURES 6G-H, or FIGURES 7A-B, or FIGURES 15-16, or FIGURES 17A-B, or FIGURES 18A-B, or FIGURES 19A-B, or FIGURES 20A-B, or FIGURES 21A-B or FIGURES 22A-C
- 15 of the accompanying drawings.
157. A connector for connecting an accessory to an inhaler housing substantially as hereinbefore described with reference to FIGURES 1 and 2A-D, or FIGURES 3A-J, or FIGURES 3K-M, or FIGURES 4A-B or FIGURES
- 20 7A-B of the accompanying drawings.